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Committee on Transportation and Infrastructure
Subcommittee on Aviation

Airline Passenger Baggage Screening: Technology and Airport Deployment Update

Testimony by

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Mr. Chairman, on behalf of Reveal Imaging Technologies, I would like to thank you for the opportunity to appear before the Subcommittee to offer my observations on the status of airline passengers' checked baggage screening. We also understand that the Subcommittee has a particular interest in the Transportation Security Administration's (TSA) pilot program of the Reveal CT-80, which I will discuss shortly. We appreciate the Subcommittee's continuing oversight of these important issues and are happy to be able to appear before you today.

About Reveal

The enactment of the Aviation and Transportation Security Act (ATSA) was a defining moment in the history of aviation security and the security industry. For the first time Congress mandated 100 percent screening of all passenger checked baggage, along with other improvements to the aviation security system, such as screening of carry-on baggage for explosives. This law, which dramatically improved aviation security, created a climate whereby private funding became available for entrepreneurs with new and innovative ideas that offered solutions to the aviation security problems.

In addition to establishing the screening deadline, Congress provided clear direction by specifying that baggage screening must be performed using TSA certified Explosive Detection Systems (EDS). Based on ATSA's clear direction, Reveal accepted the challenge of developing a next-generation EDS that was based on computed tomography (CT) technology, but at the same time was 1) less expensive; 2) smaller and lighter; and 3) designed to address the real world integration issues associated with in-line screening.

It was in this environment that we started Reveal, headquartered in Bedford, Massachusetts, raising $20 million in private funds to begin our company. We knew from the outset, that to be successful, we needed to develop a successful partnership with the Transportation Security Administration. We began that

partnership in September 2003, with the initial award of a $2.4 million grant from TSA under the Phoenix Project for the development of a next-generation EDS. Ultimately, after successful completion of a number of milestones established by TSA, the amount awarded by TSA to Reveal under the Phoenix Project was increased to $6.3 million.

Over the next year, we worked to meet the rigorous standards established by TSA to gain certification. In December 2004, Reveal's CT-80 explosive detection system was certified by TSA, thus becoming only the third EDS system to receive such a certification. At less than half the size and the cost of traditional baggage screening systems, the CT-80 provides TSA and airports with the flexibility to deploy EDS in a variety of locations, including stand-alone lobby installations, behind the airline check-in desks, passenger kiosks, or at any other point in the checked baggage system.

TSA Pilot Program

In March 2005, TSA announced that it would acquire eight Reveal CT-80 machines to conduct operational testing and evaluation at three airports. In announcing the Reveal pilot, TSA selected Gulfport-Biloxi (Mississippi) International Airport, Newark Liberty International Airport and John F. Kennedy International Airport. Gulfport was scheduled to receive two machines, while Liberty Newark and JFK International Airports were scheduled to each receive three.

TSA stated in their press release that Gulfport-Biloxi was identified as a representative small airport in which automated checked baggage screening would replace screening performed by explosive trace detection (ETD) systems; JFK International represented an airport, with its intensive peak hour international flight operations, that could not easily integrate larger EDS systems; and Newark Liberty, with its limited lobby space, is an airport that has a continuous flow of domestic passengers throughout the year.

The TSA pilot program lasted approximately 30 days at each airport. Reveal took these pilots very seriously and made every effort to ensure that all the stakeholders were happy with the performance of the CT-80. Each pilot airport provided us with information that was invaluable in improving our EDS machines. This effort to improve our operational capabilities, both to reduce the number of false alarms and increase throughput, is a continual and on-going process for Reveal.

From Reveal's perspective, the airport pilot program was a success, as demonstrated by an order from TSA in September 2005 for 73 CT-80s.

Next Generation EDS

One doesn't have to spend very much time working with airports before you recognize that the security and operational needs of each airport are different. This was confirmed by our pilot program with TSA. Given this reality, we at Reveal have been working with TSA to provide airports with the baggage screening options they will ultimately require. We believe that the Reveal Next Generation Explosive Detection System is an important tool for TSA as it works to meet the congressional mandate of 100 percent baggage screening.

Reveal's EDS machines, being smaller and less expensive than traditional EDS, provide TSA and airports with flexible deployment opportunities. Whether it is integrated in-line into an airline baggage system or deployed as a stand-alone in the lobby or at a passenger kiosk, the CT-80 offers screening solutions that are attractive to airports of all types and sizes.

TSA realized the need for flexibility last year, when it issued a Request for Proposals (RFP) for Reduced-Sized EDS. Following a competitive procurement, in which Reveal was the only supplier awarded a contract for Reduced Size EDS machines, TSA began deploying Reveal CT-80 machines at airports throughout

the country. As evidenced by TSA and airport press releases, the feedback once the CT-80s are installed has been uniformly positive with simplicity of installation, ease of use, low false alarm rates, and improvement over the ETD screening process being highlighted.

As mentioned earlier, we continue to learn from each airport deployment and continue to make improvements to the Reveal EDS system – a process that will never end. However, the process for the Government to approve product improvements has been slow. Although we appreciate the need to be thorough, the approval process for modifications and improvements to our EDS systems must be accomplished as effectively and efficiently as possible in order for TSA, airports, airlines, and the traveling public to benefit from these enhancements.

Future Challenges

Before concluding, I would like to very briefly discuss the next challenges for TSA and the Congress – screening carry-on luggage and break-bulk air cargo for explosives. Both issues are being debated by Congress, and I am pleased to let the Committee know that TSA has asked Reveal to help meet those challenges.

With respect to passenger checkpoints, TSA selected Reveal to perform research and development work under "Project Cambria," the agency's Advanced Weapons and Explosives Detection System development program. According to TSA, Project Cambria is focused on the development, evaluation, and trial deployment of EDS for automated screening of passenger carry-on baggage at airport checkpoints. TSA awarded Reveal a $3.6 million contract late last year to develop an operational system that will enhance the carry-on baggage inspection process currently used in U.S. airports. We are working closely with TSA to fulfill that objective.

Another priority issue of concern is the need to screen air cargo carried on passenger aircraft for explosives. Last September, TSA again turned to Reveal,

awarding a $2.5 million research and development contract under TSA's EDS Break Bulk Cargo Optimization Program. Reveal's mission is to apply our dual-energy CT technology to break bulk air cargo for explosives detection, thereby optimizing detection and reducing the number of false alarms.

We fully appreciate the importance of enhancing security in these two areas and Reveal is committed to working with TSA to successfully address them.

Conclusion

Mr. Chairman, since our creation three years ago, Reveal has been working closely with TSA to develop products that will enhance security while meeting the operational needs of airports, airlines and passengers. While the Government process to test and approve product improvements is lengthy, we are working with TSA to try and expedite that process so enhancements can be deployed and all stakeholders, including TSA, can benefit from operational improvements. By working closely with Congress, TSA, airports, and airlines, Reveal will continue to develop products that enhance security and improve the screening experience for all Americans.

Mr. Chairman, thank you for the opportunity to appear before the Subcommittee today. I look forward to answering your questions.